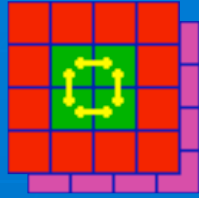


CP and JEP

Subsystem Tests

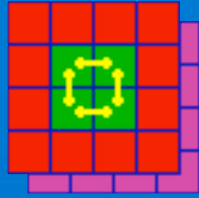
An Overview



Overview



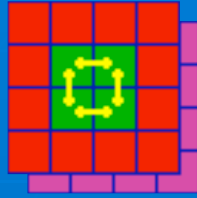
- ! Session Contents
- ! ROD Issues
- ! ROS & CPM/CMM
- ! JEM/CMM
- ! Other Issues
- ! The L-Word



Session Contents



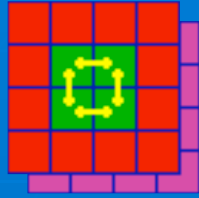
- ! CP/CMM
 - Steve & Gilles
- ! JEM/CMM
 - Juergen & Murrough
 - Energy-sum & Jet simulation and tests
- ! CMM
 - Norman & Ian
 - Technical Faults, Firmware Updates.
- ! ROD Issues
 - JEM, CMM, CPM integration teams.



ROD Issues



- ! ROD Variants: Priorities from Heidelberg.
 - Stabilisation of ALL ROD formats.
 - Completion of missing formats.
- ! Firmware Issues.
 - S-Link Status Word: Status Bits
 - ! BCID Mismatch always set. **Understood** (WQ)
 - ! Bit 0x20 (Readout_Aborted) always set (**Understood** - WQ)
 - JEM RoI.
 - ! Needs redeployment for new Jem.
 - CPM RoI:
 - ! Zero suppression is always enabled. You cannot turn it off.
 - ! The firmware zero suppresses data, even when Saturation Bit or Error Bit are set. Wrong Behaviour.
 - ! Firmware, Neutral. Observed to break under some conditions. (Status word missing missing.) Was this an artifact?
 - General:
 - ! Time skewed inputs (40ns) breaks readout.
 - ! Depends on which G-link port has early/late signal!
 - ! **Not yet understood.**



ROS & CPM/CMM



! ROS:

- **Priority from Heidelberg:**

- ! Regular running with multiple RODs into a ROS
- ! Development of post-ROS infrastructure

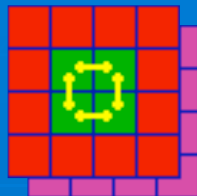
! CPM:

- **Priority from Heidelberg:**

- ! New Modules!
 - Incorporated 1
 - Tested Optical Link to ROD

- **The Goal**

- ! Achieving stable systems which can then be used for ongoing and extensive soak tests

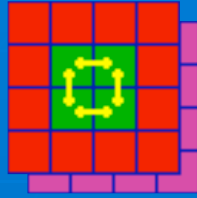


JEM/CMM



! JEM:

- Priorities from Heidelberg:
 - ! Stabilisation of JEM->CMM->ROD JetHit path.
 - ! CMM in particular
 - ! New Modules!
- Lessons in the Complexity of mapping and summing.
- More work on RoI event matching to come.
- Broken JEM
 - ! Having a close look at the module it became clear that the poor old JEM had been burnt to death. ... So we do not have any simple explanation for the death of the module. There are, however, 3 rules we should observe in future:
 - handle the modules carefully, do not place them on any surface that could possibly have metallic particles on it.
 - improve file name check algorithm and check both the file name and the file header.
 - improve the configuration mask scheme to make sure that a single stuck mask bit cannot lead to configuration of the wrong FPGA.



Other Issues

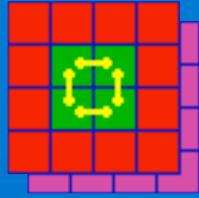


! DSS:

- TTC broadcast start:
 - ! Should zero the address counters and start playback.
 - ! In fact, Playback is synchronised only if:
 - Address pointers are zeroed via VME on prepareForRun()
 - The module is not "started" by VME in addition.
- GIO Generated Trigger Type
 - ! Occasional, sometimes frequent, "misalignment" of hardware relative to simulation.
 - ! Due to GIO flaky hardware.

! CMM:

- New firmware, DAV Gap, BCNUM, etc.
 - ! Implemented and tested.
- TTCDec interface faults isolated.
- TTC broadcast firmware soon...



The L-Word



! DSS-CPM-CMM

- Quick Measurement.
 - ! Agrees with expectation.
 - ! But is the measurement documented?
 - ! More systematic evaluation.

! DSS-JEM-CMM

- Not yet measured.
 - ! "Ran out of time"